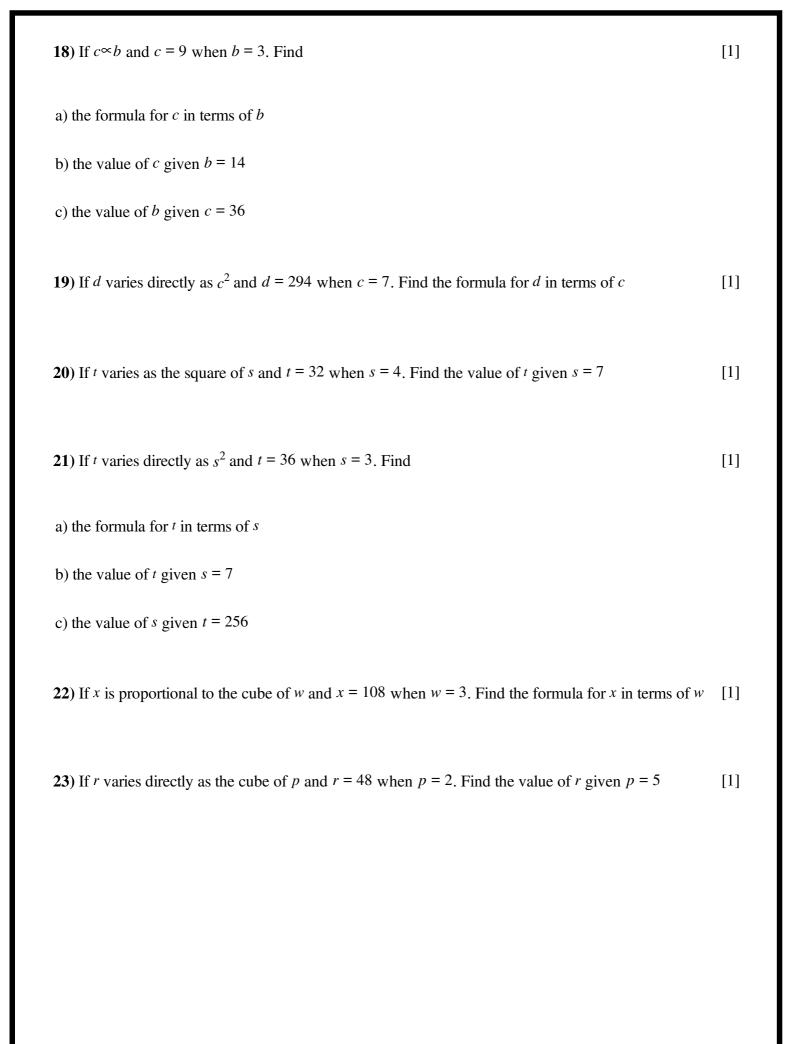
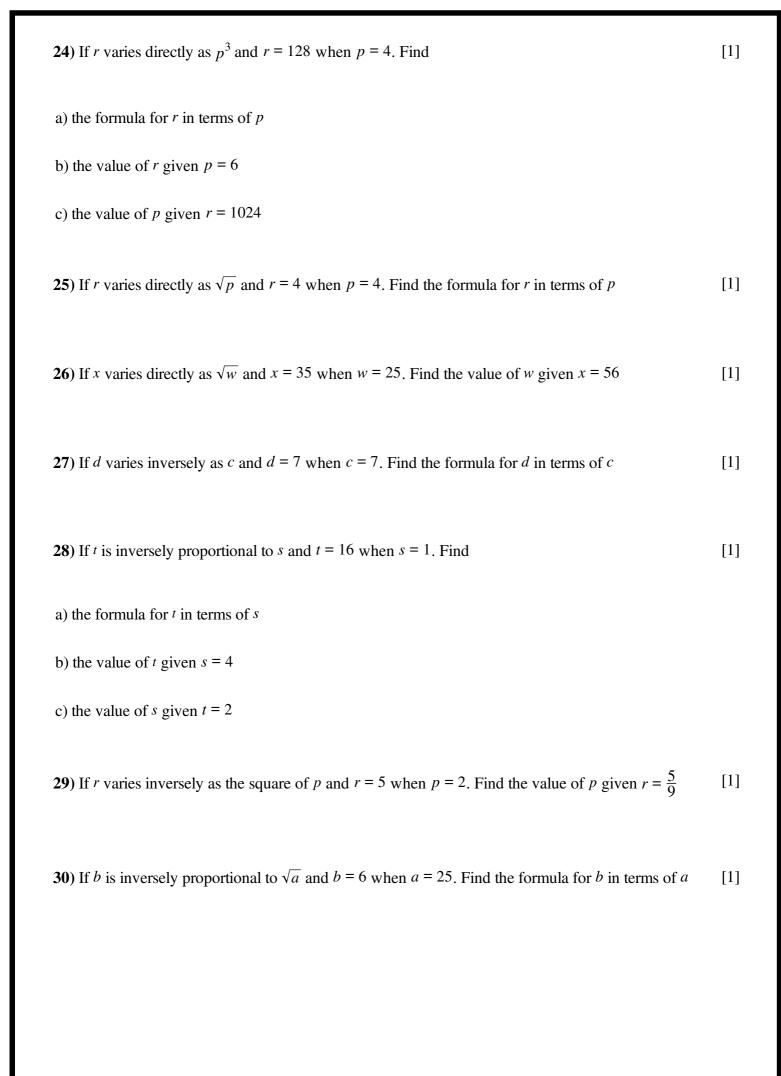
## **Revision 1: Ratio, Proportion and Proportionality**

Name: Class:	Date:			
	Mark	/33	%	
1) Simplify			[2]	
a) 35: 25 b) 6: 4: 16				
2) Write in the form 1: n, giving your answer as a decim	al rounded to 3 signi	ficant figures	[1]	
3) Write as a fraction in its lowest terms			[1]	
<ul><li>63:81</li><li>4) Share 44 balls between Melissa and Gabriel in the rational control of the control of t</li></ul>	o 6 : 5		[1]	
<b>5</b> ) Divide 36 m in the ratio 9 : 2 : 1			[1]	
<b>6</b> ) A bowl of fruit punch is made by mixing 3 parts orang	ge juice to 8 parts ma	ngo juice.	[1]	
How much mango juice is needed to make 715 ml of 7) A recipe requires 7 cups of flour to make 8 cookies. How many cups of flour will be needed to make 48 cook	•		[1]	
8) A recipe for pastry requires 50g of butter to make 100g. How many grams of butter will be needed to make 25g of	• • •		[1]	

<b>9</b> ) If 1 person takes 7 days to pick the pears from a tree, how many days will it take 7 people to do the same job?	<b>.</b>	
10) If 6 people take 10 days to pick the oranges from a tree, how many days will it take 5 people to do same job?	[1] o the	
	[1]	
11) The distance between two points on a map is 9.5 cm. The scale of the map is 1:5000.	[1]	
Find the actual distance between the two points in km.		
12) If $y$ is proportional to $x$ , find an equation that connects them given that	[1]	
y = 42  when  x = 6		
13) If $r^{\infty}p$ , find an equation that connects them given that $r=3$ when $p=9$	[1]	
<b>14)</b> If c varies as b and $c = 18$ when $b = 3$ . Find the value of c given $b = 6$		
<b>15)</b> If d is proportional to c and $d = 20$ when $c = 8$ . Find the value of d given $c = 10$	[1]	
<b>16</b> ) If $r$ varies as $p$ and $r = 12$ when $p = 4$ . Find the value of $p$ given $r = 24$	[1]	
<b>17</b> ) Given z varies as y. Complete the following table	[1]	
y 1 6 10		
z 9 72		





<b>31</b> ) If <i>n</i> is inversely proportional to $\sqrt{m}$ . Complet	e the following table
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m	16	25	
n	2		8

**32)** If *n* is inversely proportional to the root of *m* and n = 8 when m = 16. Find

[1]

[1]

- a) the formula for n in terms of m
- b) the value of n given m = 25
- c) the value of *m* given  $n = 3\frac{1}{5}$

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## Solutions for the assessment Revision 1: Ratio, Proportion and Proportionality

1) a) 7:5

b) 3:2:8

**2)** 1: 0.538

3) $\frac{7}{9}$ 

4) Melissa gets 24 balls and Gabriel gets 20 balls

**5**) 27 m: 6 m: 3 m

**6)** 520 ml

7) 42 cups of flour

**8**) 12.5 g

**9**) 1 day

**10)** 12 days

11) 0.475 km

**12)** y = 7x

**13**) r = 0.33p or  $r = \frac{1}{3}p$ 

**14)** 36

**15**) 25

**16)** 8

17) y value is 8 and the z values are 54 and 90

**18)** a) c = 3b b) 42 c) 12

**19**)  $d = 6c^2$ 

**20)** 98

**21**) a)  $t = 4s^2$  b) 196 c) 8

**22)**  $x = 4w^3$ 

**23**) 750

**24)** a)  $r = 2p^3$  b) 432 c) 8

**25**)  $r = 2 \operatorname{sqrt}(p)$ 

**26**) 64

**27**)  $d = \frac{49}{c}$ 

**28)** a)  $t = \frac{16}{s}$  b) 4 c) 8

**29**) 6

**30)** 
$$b = \frac{30}{\sqrt{a}}$$

**31)** *m* value is 81 and *n* value is  $1\frac{3}{5}$ 

**32)** a) 
$$n = \frac{32}{\sqrt{m}}$$
 b)  $6\frac{2}{5}$  c) 100